## INTERNATIONAL SEARCH REPORT

Inter: .nai Application No PCT/US 00/41164

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04L27/233 H04J3/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 HO4J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical search terms used)

WPI Data, PAJ, EPO-Internal, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category °	Citation of document, with indication where appropriate, of the relevant passages	Relevant to claim No			
Х	W0 97 19557 A (STANFORD TELECOMM INC) 29 May 1997 (1997-05-29) page 5 figure 2	1-43			
Х	US 5 930 268 A (RYAN KATHLEEN HELEN ET AL) 27 July 1999 (1999-07-27) figure 5 column 3, line 47 - line 56 column 4, line 24 - line 33	1-43			
X	US 5 579 321 A (GRINSVEN PETRUS AUGUSTINUS VAN ET AL) 26 November 1996 (1996-11-26) column 7, line 1 - line 24	1-43			
А	US 3 911 368 A (TARCZY-HORNOCH ZOLTAN) 7 October 1975 (1975-10-07) column 1, line 34 - line 40	13,16, 27,30,35			

* Special categories of cited documents  *A* document defining the general state of the lart which is not considered to be of particular relevance.	11 later document published after the international fling date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the mention.		
*E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or	'X' document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to myolve an inventive step when the document is taken alone.		
which is called to establish the publication date of another citation or other special reason (as specified).  107 document referring to an oral disclosure, use, exhibition or other means.  128 document outlished prior to the international filling date but	"Yo document of particular relevance, the claimed invention cannot be considered to involve an investige step when the document is combined with one or more other such docu- ments such combination being obvious to a person skilled in the art."		
later than the priority date claimed  Date of the actual completion of the international search	'8' document member of the same vatent family  Date of mailing of the international search report		
3 May 2001	09/05/2001		
Name and mailing address of the ISA	Authorized officer		
European Patent Office P B - 5818 Patentlaan 2 NL - 2280 HV Rijswyk Tel (+31-70) 340-2040 Tx. 31 651 epo nl. Fax (+31-70) 340-3016	Orozco Roura, C		

Y Further documents are listed in the continuation of box C

Patent tamily members are listed in annex

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT Criation of document, with indication where appropriate, of the relevant passages Relevant to claim No 6,20 EP 0 833 482 A (NIPPON ELECTRIC CO) Α 1 April 1998 (1998-04-01) abstract 32 WO 99 34529 A (PHILIPS) Α W0 99 34929 A (1911) 8 July 1999 (1999-07-08) page 2, line 3 - line 7 page 8, line 24 -page 9, line 17

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